Original Article

The Approaches and Attitudes of Nurses on Clinical Handover

Serap Parlar Kilic, RN, PhD

Associate Professor, Firat University Faculty of Health Sciences, Department of Internal Medicine Nursing, Elazig, Turkey

Nimet Ovayolu, RN, PhD

Professor, Gaziantep University Faculty of Health Sciences, Department of Internal Medicine Nursing, Gaziantep, Turkey

Ozlem Ovayolu, RN, PhD

Associate Professor, Gaziantep University Faculty of Health Sciences, Department of Internal Medicine Nursing, Gaziantep, Turkey

Mehmet Hayrullah Ozturk, RN

Mardin State Hospital, Department of Internal Medicine Clinic, Mardin, Turkey

Correspondence: Serap Parlar Kilic, Associate Professor, Firat University Faculty of Health Sciences, Department of Internal Medicine Nursing, Elazig, Turkey, E-mail: serap.parlar27@gmail.com

Abstract

Background: A patient handover is a critical process in health care services in which nurses are typically engaged several times in each working day.

Aim: The purpose of this study was to determine the approaches and attitudes of nurses regarding clinical handover in Turkey.

Method: This study, planned as descriptive and cross sectional, was conducted between April and July 2013 in seven institutions located in a city of Turkey. The sample group consisted of a total of 480 nurses. A personal information form and a questionnaire on clinical handover were used in this study.

Results: In this study, the positive aspects of clinical handover mostly indicated by the nurses were as follows; "Simplifies the follow-up of patient information", "Simplifies the acquisition of information about the patient and the disease" and "Gives an opportunity to get information that I did not know or did not understand" (respectively 80.2%, 74.2%, 67.7%). The negative aspects of clinical handover mostly specified by the nurses were as follows; "Clinical handover takes too much time" (24.4%) and "increases work load" (14.4%).

Conclusions: It was determined that nurses indicated that while clinical handover had advantages such as the acquisition of information about the patient and the disease and the follow-up of patient information, it had disadvantages such as taking too much time and increasing the work load.

Key Words: Bedside handover, clinical handover, communication, nursing handover, nurse

Introduction

Handover is described as the transfer of responsibility for patient care from one provider or team of providers to another (Chaboyer et al., 2009). Handover is a routine forum of nursing communication during change of shifts in which nurses take breaks and following patient transfers across ward spaces (Liu, Manias, & Gerdtz, 2012). A clinical handover is a critical process in health care services in which nurses are typically engaged several times in each working day (Gu, Andersen, Madsen, Itoh, & Siemsen, 2012).

MacMahon (1990) states that the purpose of clinical handover is to facilitate patient-centered care (Cahill, 1998). Clinical handover is used by nurses to provide information about medication changes and on how these changes are related to patient assessment parameters. Subsequently, ambiguities and incomplete communication during clinical handovers can increase the risks of adverse events. Ambiguities at clinical handover include lack of information exchange about essential components of patient care, such as vital signs, initial diagnosis, ongoing treatment

and newly prescribed medication orders (Liu, Manias, & Gerdtz, 2012).

The primary function of clinical handover is to ensure communication between nurses regarding patient information for the continuity of patient care (Kerr, Lu, & McKinlay, 2013). Other functions of the handover include education, briefing or debriefing, team building, social interaction, and networking (Gu et al., 2012). clinical handover the nurse/nurses transfer(s) responsibility of patients to other colleagues (Friesen, White, & Byers, 2008). Good information transfer between nurses constitutes the basis for continuity of patient care and security (Kerr et al., 2013). Additionally, it is noted that clinical handover provides an opportunity to transfer information related to the patient's condition (Chaboyer et al., 2009; McMurray, Chaboyer, Wallis, Johnson, & Gehrke, 2011). It is stated that clinical handover increases patient satisfaction by ensuring that patients are informed better, enables patients to make more contribution to their own care, develops the relationship between patient and nurse, and reduces the patient discharge time by improving patient education (Jecklin & Sherman, 2013).

Positive results were found in a study on bedside patient handover. In this study, clinical handover ensured patient security, increased efficiency, and contributed to the development of team work along with patient centered care (Clemov, 2006). On the other hand, Anderson and Mangino (2006) stated in their studies that clinical handover increased work satisfaction, interpersonal relationships, and sense of responsibility while contributing the acquisition of patient information and the decrease of overtime rates.

Bedside handover provides important development opportunity for communication between nurses and patients and also their relatives (Tobiano, 2013). The World Organization emphasizes Health communication during bedside handover as the primary safety (World Health Organization, 2007). However, there are many barriers to effective and safe handover, which may lead to patient harm and thus constitute patient safety risks such as poor communication, inadequate standardization, problems with equipment, busy wards, poor planning or use of time, complexity

of cases or high caseloads, lack of training, interruptions, and fatigue (Gu et al., 2012).

There are numerous studies on clinical handover which is one of the most important roles in nursing (Anderson, 2006; Gu et al., 2012; Thomas & Donohue-Porter, 2012). However, since there is no study on clinical handover in Turkey, it is significant for this study. Furthermore, it is important to determine how and in what way nurses carry out patient handover, what are taken into consideration during clinical handover, and what kind of problems are encountered during the process. Hence, the objective of this study is to determine the approaches and attitudes of nurses on clinical handover and to provide suggestions and guidance to the nurses in the light of the results obtained.

Methods

Study Design and Participants

This study, which was planned as descriptive and cross-sectional, was conducted during April and July 2013 in a university hospital, three public hospitals and three private hospitals for totally seven institutions that accepted to participate. While the population of the study consisted of all nurses, who were working at these hospitals between the mentioned dates, the sample consisted of 480 nurses who were voluntary to participate in the study. 578 nurses, who did not agree to participate in the study, were excluded from the study. The overall response rate for all groups were 45.4% (480/1058).

Data Collection

The data of this study were collected by using the personal information form prepared by the researchers upon literature review and the questionnaire (Gu et al., 2012; Johnson & Cowin, 2013; Kerr et al., 2013; Maxson, Derby, Wrobleski, & Foss, 2012; McMurray et al., 2011; O'Connel, 2013). Before carrying out the questionnaire, a pilot study was conducted with 10 nurses who were excluded from the study. In addition, expert opinions were received while carrying out the questionnaire.

The questionnaire was administered by using a face-to-face interview method after the nurses were informed briefly about the study and the questionnaire and their verbal consents were obtained. It took approximately 8-10 minutes to complete the questionnaire.

Instruments

Personal Information form: There were totally 14 questions in this form regarding nurses' age, gender, marital status, education, work experience, department, work status, work type, the average number of patients receiving care during a day etc.

The Questionnaire regarding the approaches and attitudes of nurses on clinical handover: This questionnaire involved 26 questions determining the approaches and attitudes of the nurses regarding clinical handover.

The first section of the questionnaire involved questions concerning whether or not the nurses carry out clinical handover processes, whether or not there is a procedure for clinical handover, the location in the clinic where clinical handovers are carried out, whether or not clinical handover related forms are used, and how clinical handover is carried out.

Its second section included questions concerning approaches of the nurses regarding clinical handover (information of the handed-over patients, whether or not the nurse introduces himself/herself during handover, whether or not the patient and/or their relatives are allowed to participate in clinical handover and to ask questions or not, and being careful for not using expressions that might have negative effects on patients and/or their relatives).

Whereas in the third section, the opinions of nurses on clinical handover (positive and negative aspects of clinical handover, problems experienced during handover) were examined.

Ethical Considerations

Written consent was obtained from the Ethics Committee of Gaziantep University Faculty of Medicine (approval no. 14.05.2013/181) and the head physicians of all hospitals that participated in the study. Also verbal consent was obtained from all nurses who participated in the study.

Statistical Analyses

The Statistical Package for The Social Sciences for Windows was used to carry out statistical analysis. Numbers, Percentage, and Chi-square analysis were used to analyze the data.

The results were considered to be significant when p value was less than 0.05.

Results

The average age of the nurses, who participated in the study, was 29.91 ± 7.69 and 86.5% were female, 58.8% were married, 51.9% had bachelor's degree, and 33.3% were working for 1-4 years. Additionally, 68.3% of the nurses were working as clinical nurses, 38.8% were working in internal units, and 37.1% were working in shifts; whereas, 49.4% of the nurses, who were working in shifts, had three night shifts per week (Table 1).

Table 2 illustrates information regarding the approaches of the nurses towards clinical handover. Majority of the nurses (96.0%) stated that they made clinical handover in their departments, 95.6% stated that they carried out clinical handover with the clinic's head nurse and the nurse providing patient with care, 91.5% stated that clinical handover was carried out at the bedside, 53.1% stated that they did not use a form specific to clinical handover, 74.4% stated that they carried out the handover both verbally and in writing, and 87.5% stated that they handed over the care, treatment (drug treatment, drug and disease information allergies etc.), (diagnosis, symptoms, vital signs etc.) during clinical handover (Table 2).

When the approaches of the nurses towards clinical handover were examined, it was determined that 45.8% introduced themselves to the patient, 54.4% allowed neither the patient to express himself/herself nor the relatives to participate in the handover, and answered the questions of 52.1% of the patient and patient relatives after handover, and 95.2% tried to use suitable expressions since they considered that the patients or their relatives would be affected negatively by the use of negative language.

When the responses given by the nurses for the positive aspects of clinical handover were examined, a great majority of the patients responded as "provides easy access about the patient", "simplifies the follow-up of patient information", "simplifies the acquisition of information about the patient and the disease", "gives an opportunity to get information that I did not know or did not understand", "prevents medical errors (drugs etc.) and "increases communication between nurses" (respectively as 80.2%, 74.2%, 67.7%, 67.3%, and 65.4%). On the other hand, when the negative aspects of clinical handover were examined, it was

determined that the most frequent response were "clinical handover takes too much time" (24.4%) and "increases work load" (14.4%). It was determined that the most frequent problems during clinical handover were "setbacks due to staff, phone, visitors etc." (65.4%) and

"communication problems with patients who speak other languages" (56.9%) (Table 3). It was determined that while 78.3% of the nurses stated that clinical handover had positive effects on patient safety, 68.8% stated that clinical handover had positive effects on employee safety.

Table 1. Socio-demographic characteristics of the nurses (N=480)

Characteristics	Frequency	Percentage				
	(n)	(%)				
Gender						
Female	415	86.5				
Male	65	13.5				
Average age ±SD	29.91±7.69					
Average experience ±SD	8.86 ± 7.26					
Marital status						
Married	282	58.8				
Single	198	41.3				
Education						
Vocational school of health	105	21.9				
Associate Degree	111	23.1				
Bachelor's Degree	249	51.9				
Postgraduate	15	3.1				
Employment duration						
1-4 years	160	33.3				
5-9 years	137	28.5				
10-14 years	72	15.0				
15 years and above	111	23.1				
Working status		20.1				
Clinic's head nurse	66	13.8				
Clinical nurse (providing patient with care)	414	86.3				
Clinic		00.5				
Department of Internal Medicine	186	38.8				
Department of Internal Medicine Department of Surgery	149	31.0				
Pediatric unit	26	5.4				
Emergency department	35	7.3				
Intensive care unit	84	17.5				
Work type	04	17.5				
Shifts (8a.m8p.m. or 8p.m8a.m.)	176	36.7				
Day (8a.m4p.m.)	126	26.3				
Night duty (4p.m8a.m.)	178	37.1				
Frequency of Night duty (n=178)	178	37.1				
Once a week	7	3.9				
Twice a week						
	68	38.2 49.4				
Three times a week	88					
Four times a week	15	8.4				
Number of patients admitted daily	210	42.0				
1-10 patients	210	43.8				
11-20 patients	155	32.3				
21 patients and above	115	24.0				

Table 2. Clinical handover information for the divisions of the nurses (N=480)

	n	(%)
Clinical handover status		
Yes	461	96.0
No	11	2.3
Sometimes	8	1.7
Existence of a procedure for clinical handover in the		
hospital		
Yes	450	93.8
No	30	6.3
Who accompanies clinical handover		
Responsible nurse	21	4.4
Responsible nurse with the nurse of the bedside	459	95.6
Handover location		
Handover room	31	6.5
Bedside	439	91.5
Nurse desk	10	2.1
Use of form for clinical handover		
Yes	225	46.9
No	255	53.1
Handover type		
Verbal	123	25.6
Verbal and in writing	357	74.4
Information that is handed over		
Information related with patient care	10	2.1
Information related with treatment	40	8.3
Disease information	10	2.1
All	420	87.5

Table 3. Opinions of nurses regarding clinical handover

Opinions	n	(%)
Positive aspects of clinical handover		
Gives opportunity to discuss patient information	271	56.5
Gives opportunity to get information that I did not know or did	325	67.7
not understand		
Gives opportunity to learn different aspects of nursing care	241	50.2
Simplifies the acquisition of information about the patient and the	361	74.2
disease		
Simplifies the follow-up of patient information	385	80.2
Gives opportunity to reach information about the patient or an	264	55.0
application in a timely manner		
Prevents delays in patient care	233	48.5
Simplifies the solution of problems faced during patient care	237	49.4
Prevents medical errors (drug etc.)	323	67.3
Increases communication between nurses	314	65.4
Increases communication with other health professionals	181	37.7
Increases communication between patient and patient relatives	178	37.1
Gives opportunity to discuss work load problems	143	29.8
Negative aspects of clinical handover		
Clinical handover takes too much time	317	24.4
Increases work load	69	14.4
Does not contribute to nursing interventions	20	4.2
I believe it disturbs the patient	45	9.4
Problems experienced during clinical handover		
Delays in clinical handover due to staff, telephone, visitors etc.	314	65.4
Communication problems with patients who speak different	273	56.9
languages		
Arguments with the patient and/or patient relatives	91	19.0
Arguments with team members	29	6.0

*Nurses reported more than one answer.

statistically significant difference determined between the positive aspects of clinical handover and the opinions of nurses on work time, handover type and handover location. The nurses who were working for 1-4 year(s) were found to more commonly use statements, "gives an opportunity to information that I did not know or did not understand" (37.2%; p=0.027) and "simplifies the follow-up of patient information" (34.3%; p=0.019) (Table 4). It was determined that the nurses who carried out both written and verbal handover responded more with the statement "increases communication between nurses" (71.3%; p=0.036), "increases communication with other health professionals" p=0.002), and "gives an opportunity to discuss work load problems" (67.8%; p=0.032) (Table 5). When the nurses' opinions regarding the location where clinical handover was conducted and the positive aspects of clinical handover were analyzed; 69.4% of the nurses who performed bedside handover, 60.0% of the nurses who performed handover at the nurse desk, and 48.4% of the nurses who performed the handover in the clinical handover room used the statement "Gives an opportunity to get information that I did not know or did not understand" (p=0.046). It was also determined that there was no statistically significant difference between other properties and attitudes in terms of its positive or negative aspects.

Discussion

This study is the first one conducted on the approaches and attitudes regarding clinical handover with the participation of 480 nurses in Turkey. This study evaluated where and how nurses carried out clinical handover, what kind of problems they faced during handover as well as positive and negative aspects of clinical handover.

It was determined in the present study that almost all of the nurses carried out clinical handover, more than half of the nurses did not use a specific form for handover, they recorded handover related information in nurse observation form, and most of them carried out clinical handover. Handoffs are given by using various methods: verbally, with handwritten notes, at the clinical, by telephone, by audiotape, nonverbally, using electronic reports, computer printouts, and memory (Friesen et al., 2008). Traditionally, handover is performed away from the bedside in

an office area and involves one or more nurse(s). Office-based handover has been criticized as being lengthy, inconsistent, inadequate, medically focused, ritualistic, unprofessional, and lack of specific training (Kerr et al., 2013). Bedside shift report reassures the patient that the staff works as a team and everyone knows the plan of care (Anderson & Mangino, 2006). In their study, Jefferies et al., (2011) determined clinical handover reflected nursing intervention, patient problems and sometimes the results of the care given in more details but written nurse notes were more limited about patient information. In the present study, it is a pleasing result that almost all nurses stated that they carried out bedside handover which enabled them to get information about things that they either did not understand or did not know. Moreover, it was thought that patient care would be affected positively from the fact that the majority of the nurses carried out clinical handover both in writing and verbally and they the fact this increased expressed that communication between them.

It is stated in literature that bedside handover gives patients an opportunity to ask questions to nurses, which enabling them responsibility of their care more easily (Chaboyer et al., 2009). Timonen and Sihvonen (2000) found that if patients were encouraged to ask questions during bedside handover, it was perceived to be patient-centered. However, in the present study it was determined that more than half of the nurses stated that they did not allow patients and patient relatives to participate in the handover and that they answered questions afterwards. The fact that nurses also expressed that clinical handover increased workload might result in their inability to give answers to the questions of the patients and their relatives during handover. However, it is quite important that nurses try to spend time to answer the questions of the patients during bedside handover in addition to determining and taking care of patient

Clinical handover remains an important source of patient health information for all nurses (Johnson & Cowin, 2013). It was also determined in the present study that the highest rate among the advantages of clinical handover expressed by nurses was that it simplified acquiring and following up of patient health information. Clinical handover enables nurses to get information about not only their own patients but

also the other patients at the clinic (Chaboyer, McMurray, & Wallis, 2010). Maxson et al., (2012) showed that nurses were satisfied with bedside report with improved awareness on immediate patient needs and concerns. It is also stated that bedside patient handover provides opportunities for the solution of many problems (Kassean & Jagoo, 2005). Furthermore it was also found in the present study that more than half of the nurses stated that clinical handover enabled them to discuss patient information and almost half of the nurses stated that it prevented delays in patient care while simplifying the solution of problems experienced during patient care, which supports the results of this study.

Handover can be an opportunity for mentoring junior staff members, socializing newcomers into the culture of nursing, helping them to learn professional goals and values, and providing a forum to develop group cohesion (Chaboyer et al., 2010). In their study, Chabover et al. (2009) emphasized that bedside patient handover helped especially new nursing graduates to gain the right information and stated that one nurse used the expression "as a casual nurse, I like it. It allows me to process information in a more meaningful way," for bedside handover. In the present study, the majority of the nurses were working for 1-4 years and they expressed that the most beneficial aspects of clinical handover were as follows; making patient follow-up easier, increasing communication between nurses, and decreasing medical errors. These results supports this.

Bedside handover provides an opportunity for increasing the communication between nurses as well as the communication between nurses and patients/patient relatives (Tobiano, 2013: Chaboyer et al., 2010). It was determined in the study conducted by Jecklin and Sherman (2013) using The Nursing Assessment of Shift Report Instrument that the communication aspect received the highest score. The fact that in the present study the majority of the patients stated clinical handover that increased communication between nurses and some of the nurses stated that clinical handover increased the communication between other health professionals and patients/patient relatives emphasized the significance of bedside handover regarding communication.

Moreover, the World Health Organization emphasizes bedside handover communication as the first safety measure (World Health Organization, 2007). This is because the studies indicated that weak communication between nurses and insufficient briefing during handover may result in the interruption of patient care, development of undesired events, and even serious problems in the patient (Chaboye & Blacke, 2008; Jeffcott, Evans, Cameron, Chin, & Ibrahim, 2009; Riesenberg, Leitzsch, & Cunningham, 2010).

It was determined in the present study that nurses mostly used the expression, "clinical handover takes too much time" and "increases workload". Similar results have been revealed on numerous studies (Chaboyer et al., 2009; Jecklin & Sherman, 2013; O'Connel, 2013). Being a global problem, the insufficient number of nurses is also a significant problem in Turkey (Kocaman, Sevig, & Kubilay, 2013) and thus delayed handover or increased work load causes nurses to worry about hindering other patient-related responsibilities.

It is stated that clinical handover may also increase anxiety of some patients, talking at the bedside may disturb patients (Chaboyer et al., 2010; Cahill, 1998) and the existence of other patients in the room during handover might disturb the patients as well (Timonen & Sihvonen, 2000). The fact that some of the nurses stated that patients might be disturbed during handover despite small rate supports this result. In addition, it was a pleasing result that almost all of the nurses stated that they were careful not to use expressions that might have a negative impact on psychology of the patients and/or their relatives. As a matter of fact, it was stated that learning detailed information about their medical health might cause anxiety in patients (Jecklin & Sherman, 2013).

Study Limitations

Several commercial limitations are remarkable in the present study. The first one was that the data of this study were obtained in one city located in Turkey. Hence, the results of the study cannot be generalized throughout Turkey. The second one was that the data were only based on opinions of the nurses and no observation was carried out during patient handover.

Conclusion

In this study, it was determined that clinical handover was carried out mostly at the bedside and both verbally and in writing. The nurses indicated the benefits of clinical handover as getting information about the patient and the disease, ensuring the follow-up of information, preventing medical errors, and increasing communication; whereas, its disadvantages were expressed as taking too much time and increasing work load.

Complete and efficient clinical handover is significant in giving proper care and ensuring the continuity of this care, meeting the needs of the patients in a timely manner, sustaining the relationship between nurses and the patients and/or patient relatives and thus preventing the negative results that might occur due to treatment. Hence, it is suggested to take the necessary precautions in institutions and to conduct similar studies based on observation in order to eliminate the negative aspects of clinical handover expressed by the nurses (taking too much time, increasing work load etc.).

Acknowledgements

The authors are grateful to all the nurses who participated in this study.

References

- Anderson CD, Mangino RR (2006) Nurse shift report: who says you can't talk in front of the patient? Nursing Administration Quarterly 30(2): 112-122.
- Cahill J (1998) Patient's perceptions of bedside handovers. *Journal of Clinical Nursing* 7(4): 351-359.
- Chaboyer W, Blake S (2008) Information sharing, knowledge transfer and patient safety. *Critical Care Nurse* 13(1): 121-123.
- Chaboyer W, McMurray A, Johnson J, Hardy L, Wallis M, Sylvia Chu FY (2009) Bedside handover. Quality improvement strategy to "transform care at the bedside". *Journal of Nursing Care Quality* 24(2): 136-142.
- Chaboyer W, McMurray A, Wallis M (2010) Bedside nursing handover: A case study. *International Journal of Nursing Practice* 16(1): 27-34.
- Clemow R (2006) Care plans as the main focus of nursing handover: information exchange model. *Journal of Clinical Nursing* 15(11): 1463-1465.
- Friesen MA, White SV, Byers JF (2008) *Handoffs: implications for nurses*. In Hughes, R. G. (Ed.), Patient Safety and Quality: An Evidence-Based Handbook for Nurses (pp. 815-861). Rockville, MD: Agency for Healthcare Research and Quality.
- Gu X, Andersen HB, Madsen MD, Itoh K, Siemsen IM (2012) Nurses' Views of Patient Handoffs in Japanese Hospitals. *Journal of Nursing Care Quality* 27(4): 372-380.

- Jecklin KS, Sherman J (2013) Incorporating bedside report into nursing handoff: Evaluation of change in practice. *Journal of Nursing Care Quality* 28(2): 186-194.
- Jeffcott SA, Evans SM, Cameron PA, Chin GS, Ibrahim JE (2009) Improving measurement in clinical handover. *Quality & Safety in Health Care* 18(4): 272-277.
- Jefferies D, Johnson M, Nicholls D (2011) Nursing documentation: how meaning is obscured by fragmentary language. *Nursing Outlook* 59(6): e6-e12.
- Johnson M, Cowin LS (2013) Nurses discuss bedside handover and using written handover Sheets. *Journal of Nursing Management* 21(1): 121-129.
- Kassean HK, Jagoo ZB (2005) Managing change in the nursing handover from traditional to bedside handover-a case study from Mauritius. *BMC Nursing* 4(1): 1-6.
- Kerr D, Lu S, McKinlay L (2013) Bedside handover enhances completion of nursing care and documentation. *Journal of Nursing Care Quality* 28(3): 217-225.
- Kocaman G, Sevig Ü, Kubilay G (2013) Türkiye'de tip-saglık bilimleri alanında egitim ve insan gücü planlaması. Türkiye'de hemşirelik egitimi ve insan gücü planlaması: Mevcut durum ve 2013 yılı vizyonu.
 - Retrieved from http://www.tead.med.ege.edu.tr/Do syalar/5/tp-salk%20bilimleri%20eitim%20konseyi %20SGP%20rapor.pdf
- Liu W, Manias E, Gerdtz M (2012) Medication communication between nurses and patients during nursing handovers on medical wards: A critical ethnographic study. *International Journal of Nursing Studies* 49(8): 941-952.
- Maxson PM, Derby KM, Wrobleski DM, Foss DM (2012) Bedside Nurse-to-Nurse Handoff Promotes Patient Safety. *MEDSURG Nursing* 21(3): 140-144.
- McMurray A, Chaboyer W, Wallis M, Johnson J, Gehrke T (2011) Patients' perspectives of bedside nursing handover. *Collegian* 18(1): 19-26.
- O'Connel B (2013) Nurses' perspectives of the different types of handover. Retrieved fromhttp://www.health.vic.go v.au/qualitycouncil/downloads/handover/clinical_h andover_bev_oconnell.pdf Accessed March 19, 2013.
- Riesenberg LA, Leitzsch J, Cunningham JM (2010)

 Nursing handoffs: a systematic review of the literature. The American Journal of Nursing 110(4): 24-34.
- Thomas L, Donohue-Porter P (2012) Blending evidence and innovation: improving intershift handoffs in a multihospital setting. *Journal of Nursing Care Quality* 27(2): 116-124.

Timonen L, Sihvonen M (2000) Patient participation in bedside reporting on surgical wards. *Journal of Clinical Nursing* 9(4): 542-548. Tobiano G, Chaboyer W, McMurray A (2013) Family members' perceptions of the nursing bedside handover. *Journal of Clinical* Nursing 22(1-2): 192-200.

World Health Organization (2007) Communication during patient hand-overs. *Patient Safety Solutions* 1: 1-4.

Table 4. Differences within the study period

	Employment Duration								
Positive aspects of clinical handover	1-4 years 5-9 years		years	10-14 years		15 years and above			
	n	%	n	%	n	%	n	%	p
Gives opportunity to get information that I did not know or did not understand (n=325)	121	37.2	87	26.8	42	12.9	75	23.1	0.027
Simplifies the follow-up of patient information (n=385)	132	34.3	101	26.2	54	14.0	98	25.5	0.019

Table 5. Differences between handover types

Positive aspects of clinical handover		Verbal		Verbal and in writing	
	n	%	n	%	p
Increases communication between nurses (n=314)	90	28.7	224	71.3	0.036
Increases communication with other health professionals (n=181)	61	33.7	120	66.3	0.002
Gives opportunity to discuss work load problems (n=143)	46	32.2	97	67.8	0.032